AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of generating a transmission signal comprising a carrier signal, the method comprising the step of ~~multiplying~~ modulating the carrier signal by at least one subcarrier ~~subscriber~~ modulation signal; wherein the at least one subcarrier ~~subscriber~~ modulation signal comprises a number, m, of amplitude levels, where $m > 2$.

Claims 2-3 (Canceled).

4. (Previously Presented) A method as claimed in claim 1, wherein m is selected from at least one of 3, 4, 5, 6, 7, 8 or 9.

5. (Currently Amended) A method as claimed in claim 1, wherein at least one of the at least one ~~plurality of~~ subcarrier modulation signal[[s]] approximates or is derived from a predetermined ~~predeterminable~~ basis waveform.

6. (Previously Presented) A method as claimed in claim 5 in which the basis waveform is at least one of a sine wave, cosine wave, triangular waveform.

7. (Previously Presented) A method as claimed in claim 5 wherein the basis waveform is selected according to desired power distribution characteristics of the transmission signal.

8. (Previously Presented) A method as claimed in claim 1, wherein the at least one subcarrier modulation signal comprises at least two mutually orthogonal subcarrier modulation signals.

9. (Canceled).

10. (Currently Amended) A method as claimed in claim 8, wherein the at least two ~~subcarriers~~ subcarrier modulation signals comprises a pair of subcarriers having a predetermined phase relationship.

11. (Currently Amended) A method as claimed in claim 1, wherein the at least one subcarrier modulation signal ~~subcarriers~~ comprises an in-phase subcarrier and a quadrature phase subcarrier.

12. (Currently Amended) A method as claimed in claim 11 further comprising the step of determining from said number, m, of amplitude levels the respective multiple amplitudes of the in-phase and quadrature phase subcarriers to maintain a substantially constant transmission signal envelope.

13. (Currently Amended) A method as claimed in claim 1, further comprising the steps of deriving from said number, m, of amplitude levels the amplitudes associated with the at least one subcarrier modulation signal from a plurality of phase states.

14. (Original) A method as claimed in claim 13, in which the phase states are equally angularly distributed around a unit circle.

15. (Currently Amended) A method as claimed in claim 1, wherein durations of the amplitudes of said number, m, of amplitude levels of the at least one subcarrier modulation signal are substantially equal.

16. (Currently Amended) A method as claimed in claim 1, wherein the durations of the at least a pair of amplitudes of said number, m, of amplitude levels of the at least one subcarrier modulation signal are different.

17. (Currently Amended) A method as claimed in claim 15, wherein the durations are ~~quantised~~ quantized according to an associated clock signal.

18. (Previously Presented) A method as claimed in claim 1, wherein at least a pair of subcarriers cooperate to define an associated plurality of phase states resolved according to mutually orthogonal axes.

19. (Previously Presented) A method as claimed in claim 18, wherein the plurality of phase states is associated with respective ranging signals.

20. (Currently Amended) A method as claimed in claim 18 wherein[[,]] dwell times in at least some of the plurality of phase states are unequal.

21. (Currently Amended) A method as claimed in claim 18 wherein[[,]] a first group of the phase states have a first dwell and a second group of the phase states have a second dwell time.

22. (Currently Amended) A method as claimed in claim 18 wherein the dwell times are ~~quantised~~ quantized according to a clock.

Claims 23-96 (Canceled).

97. (Previously Presented) Computer readable storage comprising computer executable code for implementing a method as claimed in claim 1.

98. (New) A method as claimed in claim 1, wherein said modulating comprises modulating a ranging signal using a subcarrier signal.